



It's Halloween, where are your costumes?

## WHAT'S INSIDE

### Editorials

- Political Power Plays
- The PEY Catwalk

### Opinions

- Up With Hukes
- Strike On Or Strike Out?

### Career Development

- Big vs Small
- Interview Pointers

### Skule™ News

- EFCR Class Reps
- Working Abroad
- Stanland!
- (Not So) Blue Sky Racing
- Brad Climbs the CN Tower

### Skule™ News II

- Club News
- CFES - What We Do
- ESSCO - Not A Gas Company

### Special Report: Hey PEY!

- Live, uncensored reports from past PEY students

### Miscellany

- The Commuting Life (it sucks)
- Karen goes conference-hopping
- Teresa Grabinsky

### Exam Schedule

- We Know You Want It

### The Final Word

- Rugby Ricks Some But
- Zax Derovier! Greg is EMR Proof

## AGM Rocks the Boat, EAA loses Vote

by Sally Atalla MECH 9T7 +PEY

Every year, the Engineering Society has a meeting of the members called the Annual General Meeting. At this meeting, the Society presents the financial statements from the previous fiscal year, the budget and the auditor for the present fiscal year, and proposed amendments to the Engineering Society Constitution. Any undergraduate engineering student and PEY student may vote to carry or oppose these motions.

So what happened this year?? The financial statements and the budget were approved. The rest of the meeting amounted to several approved major changes that included the creation of the Second Year Committee and the Third Year Committee, the creation of the Student Issues Committee and the elimination of the Women's Issues Committee.

Groups affiliated with the Society (i.e. the Affiliates) include the department clubs, the PEY Club, and the Engineering Athletics Association (EAA). There was

some debate regarding whether or not the committee chairs and the affiliate chairs should be voting members of the Full Council.

Before, the Full Council consisted of:

\*5 Officers (representing the Society - elected by engineering undergraduates and PEY students)

\*37 class reps (representing the classes/constituencies - each rep elected by engineering undergraduates in their class)

\*4 SAC reps (representing UoT and the university Students Administrative Council - each rep elected by engineering undergraduates)

\*11 Chairs of the Affiliates (representing the nine departments in the Faculty and elected by the undergraduates in the department, representing the PEY students and elected by the students on PEY, representing EAA and elected by any undergraduate)

Some students believe that the Committee Chairs should have a vote on Council. I believe that the reason why they did not have a vote on this council is because they represent and are elected by only the members of their committees. That is, these committees have specific roles and represent a specific group of students. It was argued that the EAA is similar to

the committees and should also be denied a vote on the Council. The motion that EAA no longer be a voting member of the Full Council was passed.

It should be noted that the Officers, the Committee Chairs, and the Chairs of the Affiliates are all voting members of the Executive Committee. The purpose of the Executive Committee is to inform and direct the Full Council. The purpose of the Full Council is to have adequate representation for the undergraduate and PEY students so that these representatives may decide on issues for the Members.

Other amendments were proposed to both simplify and clarify the content within the Constitution. There were several issues, questions, concerns, and comments brought up during this meeting, which resulted in a very long meeting. I would rather have a long meeting with students that are speaking out about valid issues, than a short meeting with students that don't care about what is happening or what their money is being used for in a Society that they are members of.

## New Mentorship Program

by Seema Opal Career Counsellor

Through the initiatives of the Alumni Office, Engineering Alumni Council the President's Council and the Engineering Career Office you are welcomed to the first year of The University of Toronto Engineering Mentorship Program.

This program benefits both students and mentors in a number of ways:

### Benefits to Students:

- Insight into how the "real world" works to better prepare for the transition into the workforce
- Better understanding of career opportunities
- Increased networking opportunities
- Development of a relationship with someone who has already gone through the "process"
- Understanding of how and what has been studied applies in the "real world"
- Understanding of what employers are looking for so that informed course selections are made

-Acquisition of "survival tips" from old pros who have "been there, done that"

### Benefits to Mentors:

- Opportunity to give back to the Engineering community
- Understanding of issues facing Engineering students today
- Understanding of how the Faculty's programs have evolved and adapted to today's fast-paced world

### How the Program Works:

- A listing of available mentors will be available in the Engineering Career Office
- The following information will be available for review: Mentor Number, Program/Discipline, Year of Graduation, Job Title, Company Name, Job Function, Industry/Field, Summary of Employment/Duties
- Students will submit the completed application form and attach a resume
- The Engineering Career Office will forward application to the mentor
- The mentor will contact the student and set a meeting

-Students will have at least one opportunity per term to meet with their mentor

Please contact Seema in the Engineering Career Office for further details:

-B760 of the Sandford Fleming Building (across from atrium)

-Phone: 416.946.3730

-E-mail: career@ecf.utoronto.ca

## Hey, PEY!

by Lisa Simpson PEY Office

In 1979, PEY began at Skule™ by placing eight students from MECH in 16-month work terms at Ontario Hydro, General Motors, and de Havilland. At the time, it was the only internship program of its type operating in Canada. Since then, the PEY model (12- to 16-month work-terms) has been adopted by 18 universities and colleges across Canada. For the 1997/98 year, the PEY program placed over 200 engineering students, the first time in history.

For many new graduates, the story is all too familiar: you need experience to get a job, but you need a job to get the experience. PEY is designed to provide students with the opportunity to move from that vicious circle to the winners' circle. Participating in PEY will help you to gain invaluable on-the-job experience while still in school, so you are in the best position to get the job you want after you graduate.

Available to students who have completed second or third year, a PEY internship consists of a 12- to 16-month continuous work period. That's 3 or 4 times as long as conventional co-op placements. As an internship program, PEY provides students with better employment opportunities and provides organizations with a better return on their training investment

(continued on page 8)

## The CyberCannon

www.cannon.skule.ca now online

by Julian Dunn COMP 0T0

The Cannon has a new website!

Over the last two months, our ever-hardworking advertising manager, George Babu, and his brother Dominic, have been working hard with us to develop www.cannon.skule.ca. We hope to use it both as a tool to sell advertisers on the benefits of advertising in The Cannon, as well as to supplement the printed copies of The Cannon. The website will feature both selected articles from the current issue, as well as archived articles from past CANNONS. In addition, useful documents and special reports, such as professor evaluations, exam schedules, and other such administrative items, will be made available for downloading, either in HTML or Adobe Acrobat format.

Unfortunately, George is a very busy man and is no longer able to serve as the Cannon's webmaster. We are looking for a new webmaster; someone with HTML experience and some concept of graphic design. If you are interested in being the Cannon's webmaster, please e-mail us at cannon@skule.ca.

EDITORS  
Julian Dunn  
Gina Seto

LAYOUT EDITOR  
Benjamin Wong

PHOTOGRAPHY  
Margaret Cyrzan, Mike Gillan,  
Vera Kan, Andrea Howard,  
Nadia Orsini

LAYOUT AND GRAPHICS  
Ayala Chai, Vera Kan,  
Ilana Kelman, Matt Lenner,  
Winston Lo, Frank Ng

CONTRIBUTORS  
Sally Atalla, Gord Bennett,  
Adam DeVita, James Drysdale,  
Pierre Duez, Julian Dunn,  
Courtney Gibson, Kevin Harris,  
Teresa Huang, Ilan Kelman,  
Dustin Kersey, Greg Kunyavsky,  
Seema Opal, Andrew Pavaicic,  
Lucy Pegoraro,  
Marie-Chantal Ross, Jai Sachdev,  
Dwayne R. Shirley,  
Lisa Simpson, Carole Song,  
Binh Ta, Calum Tsang,  
Karen Virk, Helen Vlastakis,  
Sam Wang, Stanis Yu

SPECIAL THANKS TO  
Julie Wilkinson  
Weller Publishing Co.

COMMUNICATIONS CHAIR  
Anna Edwards

ADS MANAGER  
George Babu

Established in 1977, THE CANNON is a monthly publication of the University of Toronto Engineering Society, with a circulation of two thousand five hundred copies throughout the University of Toronto St. George Campus. The mandate of THE CANNON is to publish information that is pertinent to the interests of the engineering student body.

Subscription information is available from Julie Wilkinson at the Engineering Society at (416) 978-2917.

For advertising rates, production deadlines, and other information please contact Engineering Communications office at (416) 978-5377.

#### PLEASE NOTE

THE CANNON is a medium through which undergraduate engineering students can express their opinions. The views expressed herein are those of the author and do not necessarily represent those of the editors or the Engineering Society unless so indicated.

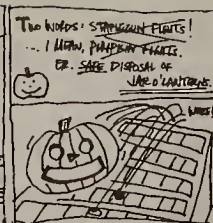
#### CORRESPONDENCE

### The Cannon

Editor-In-Chief  
10 King's College Road  
Sandford Fleming Building  
Rm. B670  
Toronto, Ontario M5S 1A1  
Tel: (416) 978-5377  
Fax: (416) 978-1245  
e-mail: cannon@skule.ca  
World Wide Web:  
<http://www.cannon.skule.ca/>

# Editorials

## HAPLESS FUSION



## On the PEY catwalk

by Gina Seto ENG SCI 9T9

Walking down the PEY hallway is very much like walking down the aisle of a candy store. So many jobs... yum! Last year, despite my resolution to hold back and wait a year before applying, I have to admit I got a little greedy when I saw fresh, new jobs advertised for California. California! Land of fuzzy peaches!!

Well that did it, I was sucked into the whole PEY process (although I had missed first round, there was no problem jumping in and applying for second round).

So I ended up having to do my CACEE form the night before it was due. By the end of it, I was ready to bust out crayons and scribble "HIRE ME HIRE ME I AM THE BEST THING SINCE SLICED BREAD!!" Sad to say, it's not the first time I've been reduced to such a disgusting state of self love. In fact, it happens every time I have to do one of these dumb applications.

When you become so fiercely intent on

making yourself appear attractive, you then share something in common with a class of people known as MODELS. You invest in your image. At least, I did.

That night, I had become so incredibly focused on making myself look so good that I almost lost sight of the things that I was really good at. That's enough to disturb anybody's harmony.

What is the application process good for, anyway? Why is it that we devote so much time and effort into writing resumes, job applications, or grant applications? What do you think it is doing to us as a whole? Our faculty has an entire office dedicated to processing cartloads of paper with words on them that are supposed to describe the most attractive and marketable features that you possess. Indecent words like responsible, enthusiastic, goals-oriented, and my FAV... cosmopolitan.

So what is my point? Don't do applications? Don't try to achieve some sort of

rewarding and stable financial future? I can't tell you that, because it is not something that I am going to do myself. What I can tell you, is that I'm getting tired of displaying my skills and accomplishments like designer clothing.

After all, what does an exercise like filling out an application do to you? It makes you pretend you know what you are, what you want to be, and what you will be. It makes you a pretend-god.

Let's not do that. I'll put what I like about me on my CACEE form, thank you very much, and if you like it too, then I want you to be my employer.

So my story ends with me getting a summer job, deciding not to proceed with my PEY interviews, and making a few enemies out of the friendly PEY office people.

To atone, we've got a nice PEY feature in this article, along with pages and pages of gripping Skule™ news. Good karma all around.

## Political Power Plays

by Julian Dunn COMP 0T0

"A small number of people with a great deal of power is a dangerous thing indeed."

I walked away from the Annual General Meeting of the Engineering Society feeling as though we had narrowly averted disaster. For those of you who have not yet read our news stories on it, the major decision made at the meeting was to revoke the voting rights of the Engineering Athletic Association on Full Council. Since all students vote for the EAA president, they are the third way in which you, as an engineering student, are represented with a vote on Full Council. What made me angry more than the fact that this resolution was made in the manner in which it was made.

The original intent of the pertinent motion was not even to address the voting rights of the EAA at all. The issue on the table was the voting rights of the standing committees: council recently discovered that constitutionally, these clubs do not actually have voting rights, even though they had been voting at meetings all along. The intent of the motion was to make it "constitutionally legal" for them to vote. The EAA was used as an example in the "whereas" clause, to justify the motion.

After a great deal of intense debate, a vote was called amidst the confusion. The original motion was surprisingly defeated but incredibly enough, a related motion was tabled to revoke the EAA's voting rights in an attempt to level the playing field! In my view, this was like saying "Oh look, the government has all the power and the people have none. Let's just take all the power away from the government so everybody's equal." As a result, I was flabbergasted when this motion was passed. Within a period of ten minutes, the spotlight had turned suddenly from the committees

to the EAA, and it appeared to have been the target of peoples' ignorance.

Actually, the point is that neither motion should have passed because there were not enough people during the vote for quorum. (Quorum is the technical term for "minimum number of people present to pass motions") However, nobody present called quorum, because many attendees did not know it was possible to stop the meeting on this point. Those who did know, failed to call it. In fact, the final tally on the motion was thirteen for and ten against. This means that thirteen people made a decision affecting one-third of the representation of three thousand engineering students on Eng Soc Full Council!

If nothing else, this should underline the importance of coming to the Engineering Society AGM. The AGM is the most important meeting of the year, because some very serious constitutional amendments can be raised on an impromptu basis, and in fact, at this particular meeting, they were. Other amendments, thankfully defeated, involved some major operational and policy changes for Eng Soc, and each time a vote was called on these issues, I anxiously held my breath. Fortunately, those present had enough sense to see through these motions, but I could not help thinking that if the proponents of the motions had wished to "stack the vote", they could have easily done so by bringing some friends. This is definitely not the way a respectable, undergraduate engineering society should run.

A famous philosopher once said: "Those who do not know their history are doomed to repeat it." Remember what happened at last year's AGM, when the votes of thirty-seven Faculty Council reps were struck from Full Council? I leave it to you to imagine what the attendance was like at this meeting. Suffice it to say this: make sure you are at next year's AGM.

## Important Cannon Dates

Writers' Meeting: November 5th, 6:30 p.m., Engineering Communications Office

Article Deadline: November 24th

Copy Editing Session: November 27th, 4-6 p.m., Engineering Communications Office

Layout Weekend: November 28th, 5 p.m. - 12 a.m. and

November 29th, all day starting at 10 a.m. (both in Eng Com)

website: <http://www.cannon.skule.ca/>

## Kiss my Uranium

by Ilan Kelman ENGSCI 9T6+M

The opinion piece against nuclear power sucked. I was appalled to the point of catharsis to peruse the abhorrent propaganda printed against this virtuous energy source in the last issue of *The Cannon*. Anyone with a microCurie of radiation in them could see how overwhelming the benefits are and how the concerns are just piddly little flies to be knocked out by gamma rays.

Ontario Hydro in 1993 had a debt of over \$33 billion dollars, mainly due to megaprojects, foremost of which are the nuclear power plants. But so what? It is only Canadian dollars. Also, the fact that Ontario Hydro's nuclear power costs over 5 times as much as hydroelectric power (per kilowatt-hour of energy generated) is totally irrelevant. Wind, solar, hydro, biomass, and other sustainable energy sources might be much cheaper than nuclear, but nuclear is still much better.

Anyway, cost is really a poor criterion on which to judge energy sources. The concern should be how much energy we use. Considering how easy it is to leave lights and computers on, to use elevators to travel one floor, and to turn the heating up when you are cold, it is obvious that we need to use lots and lots of energy. Why go to all the trouble of installing double-glazed windows and proper insulation when you can just turn up the thermostat and use the electricity generated from the nuclear power plants?

After all, these nuclear megaprojects look good. Our darling Darlington is hardly more a blot on the landscape, than...than...than a cataclysmic meteor strike. Perhaps I should rephrase that. But anyway, that is why they built large hills between the nuclear plants and the highway. People do not see it, and so there is no visual impact.

Speaking of impact, some greenie-environmental-communist-pinko types complain about the waste. They babble statistics from Atomic Energy Canada Ltd. that Canada owns nearly 100 billion kilos of nuclear fuel waste and that this amount doubles every ten years. Yet this is hardly a problem at all. After all, we have a big country; we can dump it somewhere. Of course, we still would not have room to dispose of all this waste, even if we used every long-term nuclear disposal option currently under consideration. But so what?

And its radioactivity is certainly not of concern. Sure, these 100 million kilos will be able to slaughter humans at 10 paces for tens of thousands of years, but what is a dozen millennia or so? Only a couple of hundred generations. It will be their problem and they can deal with it. Society today should not be getting their knickers in a knot over problems left for future generations. Considering the length of time before the nuclear waste could be safely handled, they are bound to think of something.

In the meantime, it is perfectly safe sitting in exposed pools of water beside the nuclear power plants. Even if there are leaks or terrorists or incompetent workers and managers at Ontario Hydro (and this is purely hypothetical), then there will not be much of a problem. So some fish might die. So people might eat the fish and die. So clouds of radioactivity might disperse

throughout southern Ontario. Big deal. At least all Canadians will finally have something in common: joy at the destruction of Toronto.

So pshaw to the environmental concerns. Ten thousand years is a long time, and the odds are that something nasty will happen, but the odds are also in favour that it won't happen in my lifetime. Engineers of the future will be very fortunate to have such an overwhelming and dangerous problem to work on. In fact, it was incredibly smart to create nuclear waste even though we didn't have a clue about how to dispose of it. I just love a challenge.

Speaking of challenges, building nuclear power plants without any clue about how they operate was rather clever. Ever since the plants came on line, scientists and engineers have had a phenomenal opportunity to experiment with nuclear energy, *in a real situation*. None of this modelling and testing crap anymore. This is real life and the knowledge gain has been invaluable. So far, we have discovered that nuclear power is far more expensive than predicted, that the materials used in the nuclear plants do not stand up to nuclear bombardment as well as they should, and that the lifetime of a nuclear power plant is far shorter than predicted.

This newfound knowledge enables us to avoid making these billion-dollar and incompetent-managerial mistakes again. I certainly wouldn't trust Ontario Hydro with nuclear power anymore, and it is gratifying to know that.

Any political concerns about exporting nuclear power have also melted away like a core meltdown. Canada has been at the forefront of exporting nuclear technology and with good reasons: cash-on-delivery from developing nations who cannot afford it and promoting Canadian technology to those who don't need it. Think of the jobs and prestige! Sure Canada gave India and Pakistan the nuclear bomb through exporting nuclear reactors, but at least it was even-handed diplomacy. Sure Romanian workers were starved and tortured while building their plants, but that experience builds character. Nowadays, we are giving the technology to China; and since they have the bomb already and since they already torture their citizens, there is no problem whatsoever. As well, we are giving China the money to buy our own technology. Now that's good business.

And the Israelis bombing Iraq's nuclear reactors in 1980 was a big mistake. If they had just let Iraq continue with nuclear energy peacefully, then we would have seen nuclear bombs being thrown about during the Gulf War and there would have been ample opportunity to study fallout patterns; the long-term medical and environmental patterns following a small-scale nuclear exchange; and the American reaction to having their soldiers disintegrated by the enemy.

Anyway the alternatives to nuclear energy are rather silly. I mean, really: sustainable and alternative energy sources. Give me a break. They are cheaper. They are effective. They do create many jobs and business opportunities. They are superb for developing local economies. And along with demand reduction and proper demand management, they could supply our energy needs. But who cares?



Examples from Europe are just rather quaint. The fact that 40% of Denmark's electricity comes from wind power can be ignored. European programs such as JOULE, THERMIE, and ALTENER—which demonstrate how economically effective sustainable energy is—are puritan. Why should Canada or other countries embrace European ideas, even if they do work? The multitudinous studies illustrating how our society could survive with non-nuclear, non-fossil fuel energy sources are wrong. Don't you understand? *Can't you see?*

Besides, nuclear power plants are the

engineer's fantasy-become-reality. All that money, all that design, all that concrete. It looks massive, it looks ugly, it looks expensive, and it looks inefficient. And it certainly is. But just thinking about the engineering mightiness involved in it makes the proverbial nipples harden. Nuclear energy will be society's saviour; it is the answer to as much energy as we can waste, irrespective of poor policy makers, ignorant decision-makers, and useless managers.

After all, nuclear energy doesn't kill people, people kill people.

## Reading Between the Lines

by Adam DeVita ELEC 9T9

If you hate "Big Union Bosses" and/or those lazy teachers, please read this. There are a couple of things about unions that you should know.

1. *First, the term "Big Union Boss" was invented as a public relations move.* There is no such thing. Unions elect their leaders. They also vote to give their negotiators the power to call a strike. In other words, a majority of union members must want a strike in order to have one, so in the case of the teachers' strike, over half the workers are willing to give up their pay in order to act. If a union's membership does not support a strike, nobody will show up on the picket lines.

2. *Preparation time.* You all can tell which TAs have which TAs have prepared for a tutorial. There is a remarkable difference between TAs who think they know a subject and TAs who have done the assigned homework. The TA who actually did the homework has spent some prep time, which is reflected instantly in the quality of a tutorial. (You can really tell which TAs have performed a particular experiment before and which haven't.)

High schools and grade schools are no

different in preparation need. In my experience, it takes up to three times the length of a lesson to prepare the material to be presented in an interesting, and understandable format for a class. Teachers know you can't just write a theorem, call it obvious (which it is to the instructor) and go on. You need lots of proofs and metaphors that relate to the lives of the students to help them understand. The younger a class is, the more energy and creativity it takes to keep the students interested.

3. *Fact about student teacher ratios:* Class size is inversely proportional to quality of learning. Increasing class size and decreasing preparation time is a sure way to ensure a lower quality of education.

4. *Beware of generalizations.* Mike Harris's speech, given the week of October 22, was written months in advance by hired marketers. Notice that he didn't talk about the specific issues in his speech.

Finally, while reading about a possible province-wide teacher's strike, keep this in mind: The government is made up of politicians: people who manipulate and use power to make themselves look good, and others bad.



**DENILE**  
NITECLUB

**PUB NITE - 2.50 WEDNESDAYS**  
**STARTING WED OCTOBER 15**  
**NO LINE NO COVER ON OPENING NITE**  
**360 ADELAIDE STREET WEST (BETWEEN SPADINA & PETER)**

**EARN EXTRA CASH \$\$\$**  
**STUDENT REPRESENTATIVE WANTED FOR GUEST LIST**  
**SERVICES AT ALL COLLEGES AND CAMPUSES**  
**PLEASE CALL NATALIE TO INQUIRE: (416) 408-2646**

# jobs jobs jobs

## Big Co., Small Co.

by Binh Ta ELEC 979

On Tuesday, October 28, 1997, the second in the "Creating Your Future" series of seminars was held in SF1105. The seminar was entitled "Getting your first job - a small company or a large one". However, the title is misleading because the topic of working in a small or large company was only one of the topics discussed by the speakers. The speakers were Dave McDonnell from Hewlett-Packard and Karen R. Lev from H.G. Engineering, a small consulting firm.

Karen's presentation focused more on the job search process and strategies for finding a job. While Dave offered a more balanced presentation on topics from his personal university experience to his current professional career. Nevertheless, the seminar was very educational and a worthwhile experience.

Both speakers offered the advice of making a plan. That means actually sitting down with a pen and paper and writing a plan. The plan would help you focus when you are searching for a job. You should ask yourself questions like "what kind of job would I be interested in doing?" and "Is there a particular field or industry or company I would like to work in?"

If you need some help answering these questions, then you can always do some research. You should also write down what things are important to you when deciding on a job or career. Items to think about can be salary, company size, relocation, and job security. You can also write down your goals for your career, i.e. what do you plan to be doing 5 or 10 years after you graduate? Do you want to be working in the management level by then? Do you want to own your own business by that time? Asking yourself relevant questions about your future will guide you in your job search process.

When searching for a job, both speakers emphasized preparation and research. This is one of the most (if not the most)

important aspects in the job search process. If you are not sure of what kind of jobs are out there or which are relevant to your discipline, then you should head to the library and start researching. Once you know what you are interested in, you should start researching specific companies that are in that field or industry. Sources of information include trade journals, financial reports, the World Wide Web, newspapers, and magazines. Also, many companies distribute their own internal documents, reports, and newspapers. All you have to do is ask.

Preparation and research will also help you in your job search process. There are many sources that can help you find a job. The Career Centre offers monthly seminars on résumé writing and can help you with interviews. The Engineering Writing Centre can also help you with writing cover letters. The worst thing you can do in ruining your chances is to have grammar or spelling mistakes in the material you send to a company (or to The Cannon—ed.).

You can improve your résumé by using bigger and more meaningful action words to describe the skills you have. These can be found in resume writing books. Remember, your résumé and covering letter represent you and the importance of making a good impression cannot be stressed more. Thus, Karen offers the advice of having your résumés printed on a good quality laser printer on good quality paper. It will be worth the extra cost of taking your résumé to a copy store.

If all this preparation, research, and planning sounds like a lot of work, IT IS. Looking for a full-time job IS a full-time job. You must put in a lot of effort. That means that it's never too early to start looking or preparing yourself. If you do not put enough effort into finding a job, then it will show in the time it takes for you to find one.

The differences of working in a small



versus a large company include salary structure, training, professional development, and job cycle. Although larger companies can offer better starting salaries, the salary structure can be narrower. This means that raises and bonuses are well-defined. On the other hand, small companies can offer more flexibility because you can negotiate raises.

In fact, Karen mentioned that she negotiated 2 raises in the past year. But she emphasized that it's not just a monetary issue when getting a raise. It's more of a way to show appreciation and your worth to a company. It's obvious that the training methods of a small or large company differ because of the amount of budget allocated to training an employee.

A large company will have a more rigid training structure due to experience and volume in training people. Budget considerations also play a role in professional development. Large companies can set aside money for employees to take professional development courses and seminars. This doesn't mean that small companies don't, but given their size, the amount of money set aside for courses and seminars would be less. This means that you would have to pay your own expenses when taking courses or attending seminars.

Professional development is important to your advancement through a company. The people who get promotions are those who have the right skills. In fact, Karen plans to go back to UoFT to take get an MBA because her job is pushing her more towards the management side of the com-

pany. She also wrote her PEO exam to get her certification.

Thus, getting a job is only the first step; where you go after that is up to you. Working in a small company can sometimes limit the number of things you do. Typically, a small company will specialize in one area of expertise, such as consulting or writing specialized programs. If there is a slowdown in the economy or the services provided by the small company is not in demand, then that can affect your job security. If a small company only specializes in certain areas, then you might find that you basically do the same thing over and over again.

Working in a large company can allow you to move around within departments if one product line is not doing so well, while another one is carrying the company. This also means that you have the opportunity to work on many different projects or work with different departments. Thus, a large company can offer more variety, in terms of your responsibilities.

The final and most important point to realize is that your degree can only give you the opportunity to find a job and not guarantee that you will find one. So don't take it for granted that just because you have an engineering degree, you should get hired. Granted, engineering is one of the hardest (if not the hardest) undergraduate degrees to get, but that doesn't mean that someone will give you a job automatically just because you have that degree. You have to put in the necessary effort and time into your job search.

## Survive the 3<sup>rd</sup> Degree

by Binh Ta ELEC 979

If you plan to send your résumé and covering letter to a company, make sure you address it to the right person. Call the company and ask them who's in charge of hiring people (i.e. who's in charge of the Personnel or Human Resources department). Do you want to take the chance of having your résumé lost in the wrong department?

After you've send in your résumé and covering letter, don't just wait for a reply. Be active. Call the company up and ask if they've received it yet. Ask about your status. Ask them if you can get an interview. Show them your dedication. If they can't answer your questions now, ask them for a more convenient time to call back. Be persistent and aggressive. Even if you don't get the job, you can always call the company again in the future. Maybe the job you applied for opened up again or there are new positions available.

When being interviewed, you will impress the interviewer very much if you have done your research by knowing a

great deal about the company. Your efforts will pay off when you ask the interviewer questions about the company. Just because you are getting interviewed, it does not necessarily mean that you are forbidden to ask questions.

Put the interviewer on the spot by asking questions like "What are three reasons why your employees like working for your company?". Be prepared to answer tough questions. Even though you don't want to seem like you've scripted your interview, you should prepare yourself to answer all possible questions the interviewer might ask you. Don't be caught off guard. Why not think of all the possible questions you might get asked and write them down? For example, "What are your three biggest weaknesses?" or "Why do you want to work for this company?"

Being prepared also means bringing extra copies of your résumé to your interview. Don't assume that the person interviewing you will have your résumé

(continued on the next page)

**BOXEY'S** 961 -  
**BOXEY**  
GRINDERS AND PIZZA  
430 1/2 COLLEGE STREET  
NEAR COLLEGE AND  
BATHURST

**SPECIAL NEIGHBORHOOD  
OFFER**

**NOVEMBER SPECIAL**  
**20 % OFF**  
**ON PIZZAS**  
(DELIVER OR PICK UP)  
**MUST PRESENT THIS COUPON**

## Class Reps for the New Skule™ Year

by Dwayne R. Shirley MMS OTO

The dust has settled and the new official class representatives for the 1997/98 school year have been elected. The Faculty Representative is responsible for attending faculty meetings, keeping their class informed on faculty related issues and serving as a liaison between the students and professors as needed. The Engineering Society Representative is responsible for attending EngSoc meetings and keeping their class informed and involved with all the activities that Skule™ offers. Together, the class reps serve the vital task of ensuring the enjoyment and betterment of engineering education for you, the students. A complete listing of this year's official Faculty and Engineering Society Representative is found on page below.

The faculty representatives will soon be collecting information for the fall term Professor Evaluations. Your co-operation and participation in the evaluation process enables the faculty reps. to prepare a comprehensive report on the professors teaching courses in our faculty. The resulting report will be published in the Cannon early in 1998. The Professor Evaluation report is in its second year and was originally launched by the Executive Faculty Council Representative (EFCR), Paul Westergaard. As the newly elected EFCR (Dwayne R. Shirley), I will continue the Professor Evaluation report with this year's team of faculty representatives.

This is a listing of all the official Faculty and Engineering Society Representative as of October 29th, 1997.

### Class

1st Year A  
1st Year B  
1st Year C  
1st Year D  
1st Year E  
1st Year F  
1st Year G  
1st Year H  
1st Year EngSci 1  
1st Year EngSci 2  
2nd Year Chem  
2nd Year Civ  
2nd Year Comp  
2nd Year Elec  
2nd Year Geo  
2nd Year Indy  
2nd Year Mech  
2nd Year MMS  
2nd Year EngSci  
3rd Year Civ  
3rd Year Comp  
3rd Year Elec  
3rd Year Geo  
3rd Year Indy  
3rd Year Mech  
3rd Year MMS  
4th Year Chem  
4th Year Civ  
4th Year Comp  
4th Year Elec  
4th Year Indy  
4th Year Mech  
4th Year MMS

### Faculty Rep.

Lisa Allegro  
Melissa Nowicki  
Shailesh Sachdeva  
Glenn Cattani  
Diana Bernales  
Vinay Verna  
Michael Ryan Iammarino  
Rene Uppal  
Michael Weissglas  
Gillian Hillel  
David Preiss  
Yuval Grinsoun  
Kanchana Sastri  
David Andrew Perry  
Raffy Turla  
Marta Guadado-Redondo  
Chassan Sleiman  
Dwayne R. Shirley  
Mark J. Edben  
Michelle R. Nokken  
Ronodev Sinhar  
Paul Westergaard  
Marisea Vanderkamp  
Heather Woods  
Janine Symanzik  
Ajay Sood  
Emerlyn Aung  
Oy Leuangthong  
Mundh Sharma  
Verna Shwetach  
Zohar Bhajwalla  
David Sinton  
Ka Lin

### Eng. Soc. Rep.

Karen Caputo  
Sherard Soparkar  
Leonard Qan  
Patrick Leong  
Bart Gojcki  
Leonard Kofman  
Chris Michael Batting  
Ian Roberts  
Jason Sears  
Tim Christie  
Marina Rados  
Julius E. Lenart  
Ben Dehghan  
Marin Shivandhini  
  
Kate Law  
Chris Buncic  
Naseem Husain  
Jean Cruz  
Andrew J. Gibson  
Christopher John Thomas  
N. Christopher Chaggares  
Jacob Hanley  
Kelly Duffin  
Alykhan Mohamed  
  
Lianna D. Ing  
Julie Louise Garvin  
Julia Michelle Christopher  
Mukarram Patrawala  
Denise Ho  
Gary Raposo  
Michael Pires

Have you ever considered exploring work opportunities outside the Toronto area? Or even outside of Canada? In addition to the many exciting opportunities that exist for young Engineers around the world, international work experience is an invaluable long-term asset to your career and to yourself.

### Today's Marketplace

Some of the most crucial work skills that employers look for when recruiting new employees include good interpersonal and teamwork skills, highly developed personal management skills, and outstanding academic and technical skills. Employers are looking for new recruits who can demonstrate adaptability, flexibility, entrepreneurialism and the team skills to effectively work with all types of people. Choosing a job abroad demonstrates these skills.

### Advantages

The career advantages of securing employment in growing regions are numerous. Young and inexperienced engineers working in areas with low unemployment and shortages of skilled labour are able to take on more responsibility at a younger age leading to faster career advancement. Recent graduates may also look forward to securing a higher starting salary than those offered in Canada. Around the world, people hold favorable opinions of Canadian culture; Canadian education is highly valued.

In addition to gaining valuable business and technical experience you will also have the opportunity to gain greater self-awareness and increased knowledge about cultural diversity and group dynamics. Travelling away from home, friends, and family to work abroad gives you the opportunity to increase your language and cultural skills, to develop

greater awareness of international issues and greater understanding of your own culture, to develop new problem-solving skills, and to create a world-wide network of contacts and friends. In places such as Hong Kong, you will find hundreds of multinationals employing people from all over the globe.

### Where are the Job Opportunities?

Many challenging work opportunities exist around the globe. In the new and growing markets of South Asia, company recruiters have informed us that they have hundreds of jobs to fill. Unfortunately, they do not have people with the necessary technical expertise to fill those positions. Don Bryan of the University of Victoria states that the Asia-Pacific region's economic growth averages 7% per year and that by the year 2000 this region is expected to consume 40% of the world's goods and services. In the United States, especially in the high technology and telecommunications industries, thousands of new jobs are created every year. Some companies have gone as far as advertising job opportunities on giant flying blimps in major cities.

### Information Resources

There are a number of ways to get information on international job opportunities. The UofT Career Centre lists international job opportunities and maintains an extensive collection of useful resources in the International Career section of their resource library. The Internet is also an easy and useful tool in conducting research. The Web provides access to numerous business associations and job boards. Many companies list their job openings on their site. The Engineering Career Office has already contacted companies in the United States and in South Asia. Seriously consider working abroad!

## ... Continued

(continued from previous page)

with them. It can happen that your résumé didn't get to the interviewer in time.

Although your marks are important they aren't the only thing they look at. How you present yourself is just as important. Your interview is the key to whether you get hired or not. Dave suggests that you should lean forward a bit in your chair when being interviewed. This is to show that you are keen and paying attention. In fact, he got that hint from a book he read.

Employers will look for what kind of skills you have and thus what you can offer to their company. Because your competition will basically have the same degree and marks as you do, you have to stand out from the crowd. That can mean emphasizing your work experience or your extracurricular activities. Maybe you are an active person and play many sports. Or you are active in Skule™. Do you volunteer? If the interviewer wanted to know about your marks, s/he can just look at your transcript.

One important tip given by Karen was

to never talk about salary in the first interview. Try to avoid any direct questions about salary, because you are basically in a no-win situation. First of all, you don't know enough about the company's salary structure to know what a fair demand would be. Secondly, you don't want to quote too large a figure, because you might overprice yourself and hurt your chances of getting that job. Leave salary negotiation until the second or third interview so that you can do some more research about salary. The PEO provides a yearly salary guide for engineers in their handbook. So that can be a good place to start. Or you could ask StatsCan or Employment Canada for figures.

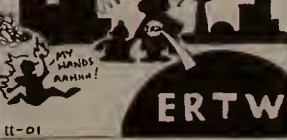
After your interview, why not do some follow-up? This can mean a phone call to the person who interviewed you to thank them for taking their time to interview you. You should even write a follow-up letter. Karen noted that we would be surprised by how many people actually appreciate such a gesture.

MOMMY, WHAT ARE THEY DOING?

THEY'RE UPSET... JUST LIKE YOU WHEN DADDY BROKE YOUR HUMOUR-ME-MIKE DOLL

WHEN WILL IT BE GLUED BACK TOGETHER?

WHenever the ENGINEERS DECIDE TO FIX IT?



# Skule™ News

## Not-so-Blue Sky Racing in Florida

by Jai Sachdev ENG SCI 9T8

The Florida Sunday Challenge is an annual alternative vehicle rally from Cocoa Beach to Orlando, Florida. This year's race was held from the 26<sup>th</sup> to the 29<sup>th</sup> of September. UoFT was represented in this race by the Blue Sky Solar Powered, Car Project. The race itself was an excellent experience for the team, since it was their first real race. Unfortunately, the bad-luck that has plagued the team since its conception continued throughout the race week.

The adventure began at 6:00 p.m. on Wednesday the 24<sup>th</sup> of September. The team was loading the two vans and the Ryder Truck with all of the equipment and tools that might be needed during the trip. Even though the car was in perfect running shape, they decided to pack everything, just in case something went drastically wrong. By 8:30 the car was being secured in the truck, when they noticed that magically the truck had sprung a major oil leak. Therefore, a replacement truck had to be found. It was midnight by the time a new truck was found and loaded, and the team left a few minutes later.

The next incident occurred during the trek down to Florida. After seven hours of driving, somewhere in the vicinity of Pittsburgh, the team leaders decided to check on the car during one of the rest stops. As it turned out, the Crappy Tire quality parts used to secure the solar car down during the trip could not handle turbulence of the Pennsylvania highways. In other words, the car had broken loose of its restraints and had been bashing around the cabin for about four hours. Needless to say the car had suffered large amounts of damage. A whole section of solar cells were destroyed at the rear, there were various scuff marks and cracks in the shell, and the shell/chassis attachment system was destroyed. At this point the car was not in racing condition, nor was the team. They tried to re-harness the car, but were forced to stop again to totally redo the fastening method in a small town called Bridgeville, Pennsylvania. As soon as the car was fastened down (the new system could have held a tank in one spot), the team continued the journey to Florida.

The rest of the trip was without incident. The team arrived at the race location in Cocoa Beach at 9:00 a.m. Friday morning.

Originally, since the car was in perfect shape, Friday was planned to be a rest and relaxation day to prepare ourselves for the race on Saturday. However, the car was now quite beat-up, so repairs began immediately. Note that at this point each of the eight team members had slept an average of two hours over the past two days (the ninth member joined the team later that afternoon). By 11:00 in the evening the team had the car in working condition, good enough for the race.

Saturday was the race day. The solar car category of the race had five entrants: Florida State University, Principia College, University of New Orleans, a New York High School, and our team. Qualifications were held on Friday and Saturday morning which the UoFT team was unable to attend since they were trying to fix the car. Therefore, the race officials gave UoFT an arbitrary starting position of 3<sup>rd</sup>. The starting order was Florida State, Principia, UoFT, New York, and finally New Orleans. New Orleans was started last because their car was very poorly designed and built. Actually, the way the New Orleans team behaved over the whole weekend was fairly pathetic and they have earned the disrespect of all of the other teams at the race, especially ours.

When the race was about to begin, storm clouds covered the skies. The race started at noon, and it was raining by the time all five teams were off. Ten minutes into the race, it was pouring rain, and the



teams were trudging along at 25 mph. This was not fast enough for the UoFT team, so they easily passed all of the other teams averaging 50 mph. If it were not raining so much they would have been able to go even faster. Thirty minutes into the race, the UoFT team was in first place and all of the others were nowhere to be seen. Then the front left tire blew. Unfortunately, the replacement tires were in the truck, which was not able to keep up with the rest of the team. By the time the truck had caught up to them, and the tire was changed (in pouring rain on the shoulder of a highway), all of the others had passed them. Ten minutes after they restarted, the exact same tire blew. This was odd since a new tire should not blow so fast. As the mechanical types of the team tried to figure out what was going on, the others noticed that New Orleans had pulled into a side road and were loading their car into their truck. When asked what happened they responded that they just could not go any further. Then the mech team determined that the wheel alignment of the car was off, and that one of the parts may be bent causing extra stress on that wheel. This was all due to the accident during the trip

down to Florida. Therefore, if team were to continue they would have to replace the tire every 20 minutes or so. This was not worth the effort or the money so they decided to pull out of the race. It should be noted that none of the teams were able to finish the race. All four of the other teams had to trailer their cars in because they did not have enough power in their batteries to get them all the way. The UoFT team was certain that they had enough juice to finish the race had they not been held up by the wheel problems.

During the day on Sunday the cars were to be displayed at Disney. The team was able to change the blown tire so that they could parade the car into Disney. During the procession the team's luck continued as the other front tire blew.

The Florida Sunday Challenge was a worthwhile experience for our team. It served as not only as their first race, but their first real test too. Throughout the whole weekend, the UoFT team was hailed by all others at the race for obviously having the best car there. The design and construction of the car was far more advanced than all four of the others. The team from Principia asked questions about the car every opportunity they had, Florida State decided that their next car will be shaped similarly to ours, while New Orleans were dumbfounded by the use of composites.

The team is hoping to be able to race the same car in May 1998 in the Tour de Sol, which starts in New York and ends in Washington. Then they are hoping to have the new car ready for the next Florida Sunday Challenge in September 1998, which should serve as a good test for Sunrayce 99. There is also a possibility of a Canadian Solar Challenge in the summer of '98. For more information about the UoFT Blue Sky Project, contact [sunrace@ecf.utoronto.ca](mailto:sunrace@ecf.utoronto.ca) or check out their web page at <http://www.ecf.utoronto.edu/~sunrayce>.



## Up Yours.....A Good Time Had by All!

by Pierre Dux ENGSCI 0T0

We came. We saw. We thought twice about it, but decided it was getting a bit cold outside, so we decided to go in... and up.

And up...  
And up...

A "team" of Engineers decided to get together and raise money for the United Way by "conquer[ing] the 1,769 stairs of the CN tower." In order to avoid the registration fee, each member had to raise a minimum of \$50 in pledges for the United Way in order to climb. In the end, sixteen runners signed up for the event. The total amount collected has yet to be determined. Something over \$800, I would imagine.

And so it was that on a cold Sunday morning in October (the 19th, to be precise)

we congregated shortly before 8 (a.m.—ed.), and waited for everyone to show up.

In the end, between midterms, illness, and a lack of last-minute communication, only 10 of us arrived to climb The Tower. But climb we did. Times ranged somewhat, as climbers paced themselves differently. But in the end, everyone made it to the top. "Why would anyone want to climb?" you might (or might not—ed.) ask. In the words of Glenn Hauck (ENGSCI 0T1), "I like stairs." Others have more competitive motivations: Mark Ebdon (ENGSCI 0T0) "treated the climb as a sort of race. Against whom? ... [his] Spring 1997 time." Others were just there to have fun.

The Lady Godiva Memorial Band arrived on the scene just as the first round of Engineers came back down. Though

they were not permitted to take their instruments up the stairs with them, they were still their merry-making selves, laughing and joking all the way up. Half an hour later, out they emerged, somewhat the worse for wear, but still in good spirits.

Some other noteworthy items from during and after the climb:

"Keep to your left, and watch your step". As I was climbing, I heard a man saying this and thought this was a sign that the end of the climb was near. But, it was just the St. John's Ambulance people warning climbers not to slip on a puddle of vomit. (A warning, perhaps, to those not quite in shape that the climb might not be the best idea for them?)

Want a balloon animal? How about a science project? Need a playmate? This

clown could make them all. From helices (single- and double-) with rolling balloon balls inside, to Pamela Anderson dolls (come with all the features! (what a bad pun—ed.)), the balloon guy on stilts was a hit with children of all ages.

The CN Tower Stair Climb is a fun event; as a three-time "veteran" of the climb, I can proudly say to all who ask that I have climbed the stairs of the CN Tower (three times). This, I believe, is what lures people to the event in the first place. The Stair Climb is also quite useful as a charity exercise: the United Way (and in the spring, the World Wildlife Foundation) receives a significant amount in donations from the two days of climbing.

The next climb will be sometime in mid-to late-April.

# Club News For You

## EngSci Club

by Kevin Harris ENGSCI 978

By the time this is printed, the Engineering Science Club will already have held our "Pre-Dinner DanceSmoker" (which I'm sure was a great success) and will have probably finished up ticket sales for the Dinner Dance itself (to be held on November 8th, see posters for more details). The ticket deadline was November 3.

This month the club is planning a volleyball tournament for the middle of the month, and our next smoker is November 27. This smoker is our now annual "Chess Smoker" at which our division chair, Zvonko Vranesic, comes out and takes on any challengers... all at once. It is quite a sight to see at quite a site.

## ECE Club

by Courtney Gibson COMP 978

Plans are in the works, and the ECE Club has set their sights on making this year's Dinner-Dance simply outstanding. This year's affair will take place on Saturday, November 22nd at the Toronto Colony Hotel; early indications are that it will surpass even the high standard set by last year's event.

Tickets will be on sale shortly, and can be purchased either directly from your class reps or in the ECE Club Room. Tickets are \$30, which includes everything except the cash bar. In a special effort to increase this year's Frosh attendance, the ECE Department has offered to partially subsidize the tickets of all Frosh: Frosh pay \$25 to attend. (Thanks, Prof. Zakyl!)

A DJ and dance floor will accompany the fine dinner and dessert, which will be served in the Colony's 360-degree revolving penthouse that offers a full view of Toronto.

This event is the perfect time to forget about mid-terms, relax with your friends, and watch some of the staff take to the dance floor (you know who we mean). For more information, speak to your class rep, or e-mail us at [eececlub@ecf](mailto:eececlub@ecf).

See you there!

## MECH Club

by Marie-Chantal Ross MECH 978

We are well on our way to a great year. Last month's events went well. The BBQs had good turnouts. Most of our consumers were third year; you might argue a lot, but you're good people, and lots of fun too. What happened to the rest of you?

We are still deciding on the logo for our T-shirt, but we should get them on sale by the middle of November. We will let you know.

A small reminder about our pop - It is 50 cents. That's right, 50 cents! We might add that it is the lowest price on campus! Or at least you can't buy it anywhere else for lower.

A few things to look forward to: We will be having at least on BBQ per month. Ummm BBQ. It's a great deal: \$2.00 for a burger and a pop (\$1.50 for only a burger). They taste great, and where else could you get such a good price?

Pool Competition. We are getting the pool table fixed. Finally! As soon as this is done, we will be holding a pool competition. There will be a doubles and singles tournament. There will be a sign up sheet in the mech common room. Cost to join is \$2.00, but you win half of the money made, the other half goes to pay off the repair costs. Announcements will be made.

The Mech/Indy Dinner Dance...

When? Friday the 21st (You don't have to worry about classes the next day).

Where? DENILE (One of the hottest, new, exclusive clubs in downtown Toronto).

How much? \$28.00/person (Bring your dates, and friend. This is not an exclusive Mech/Indy function).

Who's going? Everybody (even Faculty!)

What's the meal? Wine, Tossed or Caesar Salad, Vegetarian or Meat Lasagna or Chicken Parmesan, Coffee, Tea and Dessert.

Tickets are going on sale the first of November. See you all there.

**CLUB NEWS WAS NOT  
RECEIVED FROM THE  
OTHER CLUB CHAIRS**

# The CFES: What do we do?

by Lucy Pegoraro INDY 978 & CFES President

The Canadian Federation of Engineering Students (CFES) has been working on several things over the past year to promote and represent YOU! Here is a list of some of the initiatives we are working on:

Canadian Council of Professional Engineers (CCPE): The CFES is working with the CCPE (who are responsible for accrediting engineering programs) by giving them feedback about what WE want from an engineering education (to ensure that our education is constantly evolving according to what skills we need in industry). We have also given this feedback to the Deans of every engineering school across the country. The CFES/CCPE is currently determining what both organizations can do to ensure that students are represented in every decision affecting engineering education.

Dec 6th Memorial: The "Montreal Massacre" that took place December 6th, 1989 killing 14 engineering women is

remembered by students across the country. The CFES in previous years has distributed "14 Not Forgotten" Pins; however, the families of the victims have requested that we promote the White Ribbon Campaign which symbolizes "awareness of violence against women".

Improving Translation for the CFES: Because we are a Canadian organization, we must communicate effectively in both languages. We are currently revising the translation procedures across all branches of the Federation.

Build International Relationships: Currently, we have been involved with providing leadership to engineering student leaders in the United Kingdom by helping them set up a national engineering student body.

These are some of the initiatives (among many others) that we have been working on. If you have any questions, feedback or comments on any of these issues, please email me at [cpresident@cfes.ca](mailto:cpresident@cfes.ca). All the best, and have a wonderful holiday season!!!

# ATTENTION!

What?  
Where?  
When?  
Why?  
Who?  
How?

CCES

Edmonton, Alberta, Canada

December 31 to January 7

Meet engineers from across Canada.

Maybe YOU

Applications for CCES

(Congress of Canadian Engineering

Students) are now available in the

Engineering Society

Read this ad again.

Huh?

Applications due 5:00, November 14 in the VP Externals Mailbox in the Engineering Society

If you have any questions, email Karen Virk at [vpexternal@skule.ca](mailto:vpexternal@skule.ca).

# Now that we know what ESSCO means...

by Dustin Kersey ESSCO President

ESSCO is an organization composed of the thirteen engineering faculties throughout Ontario. The ESSCO council is mandated by engineering societies to examine concerns and projects of common interest to engineering students within the province. Having been elected in June, the council had completed the first quarter of their term by the beginning of September. This article outlines some of the projects we have been working on.

Elena Shusterman, ESSCO's VP Finance, has taken over the books and has begun determining who owes us money and who we owe money. She will be working on various projects throughout the year dealing with ESSCO budgets and the recruitment of sponsors.

Mike Hermann, ESSCO's VP Communication, has locked himself in a cubicle and focussed on designing our web page so it can provide Ontario engineering students with up-to-date information on ESSCO, conferences, competitions and events going on at each university.

Mike Wigglesworth, ESSCO's VP Education, has been working on a variety of projects. He has been collecting information on outreach programs throughout the

province in an effort to compile a resource of activities accessible by all universities. He has been researching the effectiveness of the National Graduate Registry, a service allowing students to post their resumes and to search for jobs.

As ESSCO President, I have been working on a number of projects as well as acting as a facilitator to the council. I am generating a report outlining the PEO structure in an effort to increase general knowledge of the PEO within the student body. I have also been working with the Ontario Engineering Competition Advisory Board to ensure the success of the OEC.

The largest project facing ESSCO this year is the development and implementation of a plan to establish a student membership program within the PEO. The four council members as well as students from across the province have been actively submitting ideas regarding what they would like to see come out of PEO student membership.

If you would like to learn more about ESSCO and what engineering students throughout the province are working on then visit our web site at <http://www.essco.on.ca>.

# Hey You!!

**Do you know someone that would PAY for this space? Find us advertisers, get a prize!**

**If you are interested in selling ads space for The Cannon or for The Toke Oike, come to the Engineering Society and get an "Ads Package". It gives you all the details of how to sell an ad, following the procedure that we have outlined. And your reward is a whopping 50% of the ads income!**

**For more information, read the Board in Eng Soc, or contact the Engineering Communications Chair at [engcom@skule.ca](mailto:engcom@skule.ca)**

# Hey, PEY!

(continued from the front page)

than co-op programs do.

Students who participate in PEY have a greater opportunity to develop their ability to work independently and as part of a team, to assess and refine their career choice, and to enhance their communication and interpersonal skills—all while earning an excellent salary.

## Student feedback

"Before I applied for PEY, I wasn't sure that taking a year off of school to work was a good idea. Now, I am really glad that I did. It really gave me a chance to experience what it is like to be a full-time employee. By being in the work force, it gave me a whole different perspective of what school is about. Very often I did not understand how the materials being taught in class can apply in the real world. But now, if I was to take all the courses from my first 3 years again, I'm sure I would learn and appreciate them so much more."

-Mechanical Engineering student placed at de Havilland Inc. 1996/97

"Accepting a PEY position was a big decision. I had to choose to postpone my graduation and miss many great times with friends from school. However, I look at it as more of a trade-off than a sacrifice. If I had not gone on PEY, I would have missed out on meeting great people, visiting fantastic places, and gaining valuable work experience. As I mentioned, it was a big decision and I'm glad that I had the courage to make the right one."

-Electrical engineering student placed with Netron Inc. 1996/97

## Employers have their say...

"As an employer, we feel that the 16 month time frame associated with the PEY program is its greatest attraction. As our business involves a fairly steep learning curve, the extended time frame of the placement allows us to invest in extensive training of our PEY students."

## - HTS Engineering

"The program is a success because it brings out the completeness of a student training program. It enables the student to contribute to the programs/projects he/she has been assigned. Also, it provides the duration required for the working team to gel."

## - AlliedSignal Aerospace Canada

## The Next Step

Now, if you have decided to incorporate a PEY work-term into your academic career, what is the next step? The first thing you should do is visit the PEY office (located in the Sandford Fleming Building, directly across from the cafeteria) and pick up one of the PEY Student Guides currently available. The Guide contains the

activity schedule for this year as well as instructions on how to proceed through the application process. If you are in your second or third year of study, you are eligible to apply to the program right now. PEY applications (with the \$40 application fee) are being accepted until November 27th for students wishing to apply for positions advertised in the Winter Round.

## The Little Things About PEY

by Andrew Pavock ENGSCI ELEC 977 + P

Anyone in this faculty is continually being inundated with pamphlets, guest speakers and (oh, the irony!—ed.) newspaper articles singing the praises of the PEY programme and how wonderful it is to be coming back from 16 months with things like "clear focus" and "direction" and whatever. The danger in advertising to savvy cynics like us is that we'll all think it's just some admin-type person out there trying to keep us from graduating for another year. After all, what does an objective factual statement like "I just got back and wow, there's meaning in my life now!!!" really mean?

It means your lives are meaningless.

The problem is that engineers just don't have any public image. Your parents see doctors, dentists, accountants, and retailers every so often, but to them, an engineer may as well be one of Santa's elves, except for that weird little guy (you) they have to do all their math problems and VCR clock programming. They probably think all that advanced calculus you do is going to teach you clever tax-evading tricks. The world of fighter aircraft, space probes, nuclear

fusion, molecular chemistry, and data compression is so far removed from everything normal people deal with, that there's an impression that to become an engineer is to somehow remove yourself from society.

In fact, this is usually true, since 96% (this one's true—ed.) of all engineering graduates do actually go on to become Santa's elves, enjoying all the social thrills reindeer and polar bears can provide, never appearing dressed in power suits at concert halls or film festivals at all. This is just one of those little secrets of engineering you can't possibly know until you've been part of the team yourself, one of those little things about PEY. Since the list of these secret little things is truly endless, there's no harm in giving away a few:

Little Thing B: "See, we don't really know what we're doing, either."

When presented with a job you think is hopelessly beyond your ability, take it immediately. This will instantly impress everyone, including yourself, and quickly prove itself as the best decision you ever made.

Little Thing C: "<sigh> It's so lonely at the top..."

Having money to go out is not enough; your friends have to have money to go out too. Go on PEY in teams.

Little Thing D: "I spent all week tuning this capacitor! Give me a raise." Your first month, you will feel as if you are being paid to do nothing. Later, you will realize that the whole world works this way.

Little Thing G: "Well of course 'jim' is a boolean!"

Designing things that work but are impossible to understand at skule™ costs you marks. Designing such things for a company forces them to rehire you.

Little Thing H: "Wow, all this time the TA really was speaking English..." Contrary to belief, you do not forget everything you learned. In fact, you come back knowing precisely which courses you want to take, and why, and end up correcting the profs and asking questions all the time. (Anything you do forget was really useless anyway.)

Why graduate in four years when you can do it in five?

## Sam Wang Meets Dilbert

by Sam Wang ENGSCI 979 + PEY

What does one associate with PEY? Work? That would be a misnomer. Of course, that was what I thought when I got involved in the program. Don't let me mislead you, there is a lot of work, but the more experienced student gradually finds out that it's not how much work you get done, but choosing what to get done to make you look like a super employee. Try to do everything and your boss will think, boy, I'm not giving this guy enough to do! Do only the important stuff and he'll think, "Can't push this guy around, he has a backbone." So that's lesson one: know what you need to do and do it! Otherwise just tell them "That's not my job. You'll have to get someone else to do it."

While we're still on the subject of mis-

nomers, another thing I quickly learned is that people don't mean what they say and they don't say what they mean. Here's an example of an everyday conversation.

1: "Good Morning!"

2: "How are you doing?"

1: "I'm fine."

2: "I've got something I'd like you to do."

1: "I'm busy at the moment; what did you want me to do?"

2: "Well, there's ... (describes a job)"

1: "Sorry, but I won't have time to look at it for another couple of weeks."

2: "I understand, I'll ask someone else."

Here's the translation:

1: "Good morning! What else can I say?"

2: "Don't know, breaking the ice I guess."

1: "Doesn't matter what I say anyways."

2: "Here's something I don't want to do, so maybe you'll do it for me."

1: "Not too thrilling, but I'll listen."

2: "Here's what I'm hoping you'll do..."

1: "Nope, I wouldn't want to do that if you doubled my salary."

2: "Damn, I'll have to look for someone else to try my luck on."

Of course, I learned the usual technical things that they don't teach at school, and applied all the stuff that they do teach at school, but this was the most striking thing about PEY. In PEY, you stay in a company long enough to see through all the formalism and to get to the meat of the conversation (as well as filling your pockets with green things).

As a summary, here are the two important lessons learned after 5 months:

Don't work hard, work smart.

People don't say what they mean. It would be unprofessional to do so!

## My Uncensored, Unabridged PEY Experience

by Helen Vlastakis MECH 978 + PEY

When I came to UoT, I was determined to finish my degree as fast as possible and get out into the "real world". At the start of third year, I knew that I needed both a break and a meaningful engineering experience. I started my PEY adventure with that attitude in mind.

Step one of many in the PEY process was the application, but filling out the CA-CEE form was tiresome. There were many nitty-gritty details that had to be "translated" into a unique, eye-catching personal sales pitch. I spent lots of time on it, and visited the Career Centre regularly to get direction and advice along the way. The result was a few hopefully well-

written sheets of paper that were destined to get me an interview or two.

When they tell you to only apply for jobs that you think you want, believe them. I ended up with 14 interviews, some for jobs that I would only consider taking if absolutely destitute and desperate. Be selective. For the actual interview, look as professional as you possibly can. It also helps you to be totally relaxed and confident (not to be mistaken with cocky). After the first few interviews, I was so relaxed that by the time they were over, I had made some new friends and contacts.

Waiting for the Judgment Day, the Day of the Job Offers Came, was excruciatingly painful. We missed classes, sat in the cafeteria, bit on nails, and paced. Finally, the

torment and torture of waiting was over and we all had very important decisions to make.

I'm in Calgary now, meeting new people, enjoying the mountains, missing home sometimes but making the most of my time out here. The job is amazing. I've never learned so much or done so much hard work or dreamed so much about where I'd eventually like to be. I never thought that telecommunications was the industry for me but I've discovered what an interesting, exciting, dog-eat-dog world it really is and I am enjoying it immensely! No, it's not all smooth sailing. The hours are very long and the stress is abundant. I have responsibilities and duties with people and production relying on me. Sometimes it's

technically challenging, but often it's not the technical work that stumps me. There are internal politics and bureaucracy to overcome. There are teams to become a part of and work with. There is internal structure and business direction to be learned and followed.

There isn't a moment that I've regretted going on PEY. I can say with certainty, 6 months into my term, that a 16 month term is the perfect length. Everyone treats you like a regular employee because you're there for so long. It gives you lots of time to learn about the business, the engineering department and the people and teamwork involved. The added bonus is you get to leave school for a year and put your life and future goals in perspective.

## VP-X(ternal)'s Files

by Karen Virk  
ELEC 9T9



Hello to all on this lovely November day. Despite the craziness and stress of midterms, lots has happened in your Engineering Society this month. Just to give you a brief update, this past month a lot has been happening on the external front. The PEO Conference took place from October 2-5 and a lot was discussed and discovered. For more information on the PEO and the conference in general, please come and see me or email me. There will be a special report in the *Canon* next issue about the PEO and the PEOUES Conference. As well, ESSCO and CFES are working very hard on their projects. Again, you can read the articles to see what is going on outside of skule.

One of the things to take note of in the near future is the External Affairs which will be taking place in the Atrium November 25 during lunch time. There will be a bunch of booths that will represent different external organizations so you can

ask any questions, bring any concerns or just get free schtuff. (that's right! free schtuff!) The organizations that will be represented are the PEO, CCPE, ESSCO, CFES, CCES and OEC/CEC. Information will be available on all these organizations and there will be representatives from the PEO, ESSCO, CFES and CCES. (If you want to know what all these letters mean, look at the guide for acronyms!)

On a different note, the Engineering Career Office is going strong and the foundation is getting set. It should be up and running to its fullest potential in about January. If you haven't met Seema yet, I encourage you to head down to the office for a chat.

Another major event that occurred recently was the Engineering Society Annual General Meeting. That took place on October 29 and many changes were made to our constitution. If you have any questions or concerns, I encourage you to ask one of the officers or come to our next Executive or Full Council meeting.

If you have any questions, comments or concerns, please come down to "Nsock" and ask for me or email me at [vpexternal@skule.ca](mailto:vpexternal@skule.ca). Good luck on midterms!

## Your guide to External Acronyms

|       |                                                                                               |
|-------|-----------------------------------------------------------------------------------------------|
| PEO   | Professional Engineers Ontario<br>Pathetic Engineers' Oratorio                                |
| CCPE  | Canadian Council of Professional Engineers<br>Crazy Cartel of Perforated Egomaniacs           |
| ESSCO | Engineering Society Student Councils of Ontario<br>Excited Salacious Sexy Criminals of Ottawa |
| CFES  | Canadian Federation of Engineering Student<br>Colony of Freakish External Spaceodidies        |
| CCES  | Congress of Canadian Engineering Students<br>Constipated Cannabis Enthusiasts of Skule™       |
| OEC   | Ontario Engineering Competition<br>(O)Buffalo (E)Fatuous (C)Catharsis                         |
| CEC   | Canadian Engineering Competition<br>Cataclysmic Endocrine Collapse                            |

## Teresa's Saga: Grab In Sky

by Teresa Huang GEO 9T9

Such a ludicrous allegation, that I should be partial towards a certain figure. Such an audacious notion, that it should be critical to a dubious deterrent. Equivocally, I am talking about pressure. It is, or has been, midterm season for us, the sheared and the stressed. And it is evident, because sleep and personal hygiene seem to be more readily accepted as luxuries for those with too much time on their hands. Especially the personal hygiene part. I have been so delicately asked by artsie acquaintances about how it feels to be a minority, gender wise, in a discipline fraught with men. Trust me girl, it ain't as exciting as you're imagining it. See, trying to look good would be just silly. Especially after staying up 'till 3:00 in the morning with impending midterms oozing out of you like Olestra.

Notwithstanding, the others around me are on the same boat as I am. It is analogous to a miner story. After a long shift, two miners get on the lift to get aboveground. One of the miners is dirty from

mining, but one has managed to remain clean. They see each other, get off the lift, and walk home in different directions. The clean miner stops to wash her face, but the dirty miner goes home without washing. They each saw other and were misled into assuming that their observations reflected their realities. Thus, if my classmates ignore personal hygiene in order to study for the midterm, they could be oblivious to my transgressions, or they might take the cue and improve their own situation.

On a totally unrelated note, I have received much feedback since the last publication of *The Canon*. To my dismay, most of them were as supportive as, say, soil in the boiling condition. Some of my gentle readers were rather indignant about my alleged attempt of calling them obtuse, expressed in such fashions as subtle as, say a bulldozer. One particular gentleman decided to engage in much animated, eloquent and witty conversations with me, by asking thoughtful questions like "Have you done your problem sets?" Twice a day when we *didn't* have problem

## The Commuting Life

by James Drysdale MECH 0T0

Ah, the joys of university life: friends, fun, Skule™, and, for many of us, commuting. Yes, for those of us too stubborn, too reluctant, or too financially challenged to stay in residence, commuting is something that many of us are destined to repeat every day. Whether it be by bus, car, subway, or GO-Train, commuting doesn't have to be the harrowing experience portrayed in fast-forward clips of subway stations at rush hour. Rather, it can be a pretty successful, if not fun (yes, *fun*) experience, if you know how to make the ordeal less of an ordeal.

The first thing to realise as a student commuter is that, predictably, whatever city you live in, and whichever transportation system you use, it's going to be late, somehow, somewhere. Whether it be that accident with the hotdog vendor on Jane, or that topless group of women on Bloor, there are going to be delays, so *get there early!* Of course, getting at the bus-stop at 4 am when the route starts at 5 won't do you much good, but it is a good idea to plan ahead. And since the bus schedules are almost certainly wrong (it is a conspiracy) or chronologically challenged, you'll probably be well-advised to allow a certain amount of time for delays.

It is also a good idea to have your tick-

ets pre-purchased and ready when you get on the bus, train, subway, or streetcar. There are few things worse than getting on the bus and suddenly realizing that you left your tokens on your computer after chatting on IRC for 4 hours. And if you forget your ticket for the GO-train, but still board the train, you could be in trouble if your car is checked by the ticket attendants. The fines hover somewhere around \$100 if you are caught without your ticket, or your ticket isn't properly stamped. Plus you'll have to endure the stares of the other commuters for the duration of the ride, with them pointing and whispering, until you start to go mad and start sobbing uncontrollably.

In addition to taking the worry out of rummaging in your pockets for change, you can often save a bundle by purchasing tickets beforehand or in groups. Both the TTC and the GO-Train offer discounts for buying 10 rides or more. If you use the GO, you should also take advantage of the student discount card can get at the Engineering Office at GB102. Sadly, there's no discount for university students with the TTC, no matter how hard you beg, cajole or claim "poor university student" status.

Now that you know the basics of getting on public transit, what can you do to pass the time until you arrive at your destination? Well, there are several fun and/or important things to do:

1) Do the Walkman/Personal CD playing thing.

This is always good to pass the time. But unless you want to endure the angry gales of the other people, *keep the volume down!* There's nothing worse than listening to someone else's Dwight Yokam, especially when they're sitting on the other side of the subway car. To avoid annoying others, do this simple test: turn your player on, set the volume to what you want, and then hold each earphone in a fist. If you can still hear the music through your fist, chances are it's too loud. And it'll save your ears a bit of abuse, too, so you can ruin them at SUDS on Fridays instead.

2) Read a book

Another good pastime. It can be the current Dean Koontz garbag - er, novel, or your dynamics text, if you want to impress (or lose) your friends by showing your prof you know the textbook by heart.

3) Study, study, study...

Studies have shown that last-minute studying decreases the information stored in your short-term memory, but that is probably not going to stop you from re-reading your notes before your mid-term. Just be sure you give a small portion of your attention to where you are on your route. Although missing your stop and backtracking will give you more time to study, it'll more likely than not just cause you extra stress and emotional distress, especially if you show up late for your test.

4) Play mind games with Yuppies

You've seen them, in the subways, on the GO, on the buses. Their eyes dart back and forth from their watches to their laptops to today's Fincial Post. Yuppies. Luckily, you can use their quirkiness to have a little fun and stave off boredom. One popular method is to consistently stare at a yuppie, until s/he glances up at you, at which point you quickly look away, pretending deliberate non-chalance. As soon as they glance back at their fourth quarter reports, you, of course, start to stare again. You may even get said yuppie to move, at which point you signal another student sitting near him or her to commence the game again.

Keep these tips in mind, enjoy your Skule™ year, and happy commuting!

## High Skule™?

by Carole Song ENGSCI 9T9

Interested in returning to your high school to socialize with some of your friends and to visit your prior teachers? Although the Information Session was on Nov 3, you can still involve yourself in the High School Liaison Alumni Visits by emailing me (Carole) at [highschool@skule.ca](mailto:highschool@skule.ca)

You will be provided with a kit that contains information on the engineering programs at UoT as well as with some of the various events that will be held throughout the year.

Visits must be completed by the end of November since high school students are required to choose their universities in December. (I would prefer that you visit your high school before November 14<sup>th</sup> so that Frosh for a Day can be adequately endorsed).

sets due. Another alert reader decided to inform me that a witty conversation should appeal to a wider audience, on topics such as the growth patterns of sheep. I must thereby profess my innocence in patronizing readers who just don't understand; it would be as outlandish an idea as, say, being partial towards a Vulcan look alike figure.

Speaking of Vulcans, this article slyly incorporates this month's theme. Relationships, inferred relationships, and showering. I have been continuously plagued by taunting from the aforementioned witty readers of mine. Not because I don't shower (which I do), but due to an audacious charge that I should be slightly obsessed with an older man. Sure, no smoke without fire but I don't go for the figure. It is the intellectual stimulation that challenges me. Oh yes, and the wit. Which would probably make those irrational allegations invalid. Stop snickering, Clay, I doubt that you expend 200% (which you probably need to) when placed in moist conditions anyway. Ba-bow.



# University of Toronto

## Faculty of Applied Science and Engineering

### Final Examination Timetable - Fall 1997

| Type | Course  | Course Name             | Date               | Time      | Type | Course  | Course Name              | Date               | Time      |
|------|---------|-------------------------|--------------------|-----------|------|---------|--------------------------|--------------------|-----------|
| D    | AER301F | DYNAMICS                | FRI. DEC. 12, 1997 | 2:00 P.M. | A    | ECE310F | INT. TO LIN. SYS. & CONT | WED. DEC. 10, 1997 | 9:30 A.M. |
| A    | AER305F | FLUID MECHANICS         | MDN. DEC. 15, 1997 | 2:00 P.M. | A    | ECE320F | FIELDS AND WAVES         | FRI. DEC. 12, 1997 | 2:00 P.M. |
| D    | AER373F | MECH. OF SOLIDS & STR.  | WED. DEC. 10, 1997 | 2:00 P.M. | D    | ECE330F | SEMICONDUCT. PHYSICS     | MDN. DEC. 15, 1997 | 2:00 P.M. |
| X    | AER402F | ATMOSPHERIC FLIGHT      | MDN. DEC. 08, 1997 | 2:00 P.M. | D    | ECE334F | DIGITAL ELECTRONICS      | TUE. DEC. 09, 1997 | 9:30 A.M. |
| D    | AER410F | GAS DYNAMICS            | MON. DEC. 15, 1997 | 2:00 P.M. | D    | ECE341F | CDMPUTER DRGANIZ.        | TUE. DEC. 16, 1997 | 2:00 P.M. |
| X    | AER506F | SPACE DYN. & CONT. I    | THU. DEC. 11, 1997 | 2:00 P.M. | C    | ECE350F | PHYSICAL ELECTRONICS     | FRI. DEC. 12, 1997 | 9:30 A.M. |
|      |         |                         |                    |           | D    | ECE352F | CDMPUTER ORGANIZAT.      | THU. DEC. 18, 1997 | 2:00 P.M. |
| A    | APM288F | DIFF. EQUATIONS I       | FRI. DEC. 05, 1997 | 2:00 P.M. | A    | ECE355F | SYST. & SIGNAL ANAL. I   | MON. DEC. 15, 1997 | 9:30 A.M. |
| A    | APM291F | DIFFERENT. EQUATIONS    | MON. DEC. 08, 1997 | 9:30 A.M. | C    | ECE359F | IND. ELECT. & ENER. CON  | WED. DEC. 17, 1997 | 2:00 P.M. |
| C    | APM384F | PART. DIFFERENT. EDUA.  | THU. DEC. 18, 1997 | 9:30 A.M. | C    | ECE360F | ELECTRONICS              | MON. DEC. 08, 1997 | 9:30 A.M. |
|      |         |                         |                    |           | A    | ECE370F | INTRD. TO MICROPROCE.    | TUE. DEC. 09, 1997 | 9:30 A.M. |
| A    | APS103F | ENG. SOCIETY & ENVIR.   | MON. DEC. 15, 1997 | 9:30 A.M. | D    | ECE371F | ENG. ECDND. ANALYSIS     | THU. DEC. 18, 1997 | 2:00 P.M. |
| A    | APS105F | CDMPUTER FUNDAMENTAL    | THU. DEC. 11, 1997 | 9:30 A.M. | D    | ECE373F | ELECT. SYS. ANAL. & DES. | MON. DEC. 08, 1997 | 2:00 P.M. |
| A    | APS106F | FUNDAMENT. OF CDMPUT.   | THU. DEC. 11, 1997 | 9:30 A.M. | C    | ECE410F | CONTRDL SYSTEMS I        | TUE. DEC. 09, 1997 | 2:00 P.M. |
| X    | APS107F | INTRO. TO COMP. FUND    | THU. DEC. 11, 1997 | 9:30 A.M. | C    | ECE413F | PDWER SYSTEM ANAL.       | MON. DEC. 15, 1997 | 2:00 P.M. |
| A    | APS185F | TECH. WRIT. IN ENGLISH  | MON. DEC. 15, 1997 | 2:00 P.M. | A    | ECE416F | CDMMUNICATION SYSTEM     | THU. DEC. 11, 1997 | 2:00 P.M. |
| X    | APS232F | ENTREPRE. & SMALL BUS   | THU. DEC. 18, 1997 | 2:00 P.M. | C    | ECE424F | MICRD WAVES              | MDN. DEC. 08, 1997 | 9:30 A.M. |
| A    | APS302F | ENG. SOCIETY & ENV. II  | MON. DEC. 15, 1997 | 9:30 A.M. | D    | ECE426F | INTRD. TO OPTICAL ENG    | WED. DEC. 17, 1997 | 9:30 A.M. |
|      |         |                         |                    |           | A    | ECE435F | DIGITAL ELECTRONICS      | MON. DEC. 15, 1997 | 9:30 A.M. |
| C    | BME595F | BIOSYSTEMS IV           | TUE. DEC. 16, 1997 | 2:00 P.M. | A    | ECE443F | SYSTEM SOFTWARE          | FRI. DEC. 05, 1997 | 2:00 P.M. |
|      |         |                         |                    |           | A    | ECE445F | BIDSYSTEMS I             | FRI. DEC. 05, 1997 | 9:30 A.M. |
| A    | CHE112F | CHEMISTRY               | THU. DEC. 11, 1997 | 9:30 A.M. | A    | ECE446F | ELECTRD ACOUSTICS        | WED. DEC. 10, 1997 | 2:00 P.M. |
| A    | CHE150F | CHEMISTRY               | FRI. DEC. 05, 1997 | 2:00 P.M. | D    | ECE471F | INSTRUMENTATION DES.     | THU. DEC. 18, 1997 | 2:00 P.M. |
| B    | CHE200F | APPLIED CHEMISTRY I     | WED. DEC. 17, 1997 | 9:30 A.M. | D    | ECE512F | ANALDG FILTERS           | THU. DEC. 18, 1997 | 2:00 P.M. |
| A    | CHE203F | APPLIED CHEMISTRY II    | THU. DEC. 18, 1997 | 2:00 P.M. | C    | ECE533F | INDUST. ELECTRONICS      | FRI. DEC. 05, 1997 | 2:00 P.M. |
| D    | CHE211F | FLUID MECHANICS         | FRI. DEC. 12, 1997 | 2:00 P.M. | A    | ECE534F | INTEGRATED CIR. ENGN.    | THU. DEC. 18, 1997 | 9:30 A.M. |
| C    | CHE221F | CAL. & NUM. METHDDS     | TUE. DEC. 09, 1997 | 9:30 A.M. | C    | ECE557F | SYSTEMS CDNTRDL          | TUE. DEC. 09, 1997 | 2:00 P.M. |
| A    | CHE311F | SEPARATION PROCESSES    | THU. DEC. 11, 1997 | 2:00 P.M. |      |         |                          |                    |           |
| C    | CHE321F | APP. DIFFERENT. EQAT.   | WED. DEC. 17, 1997 | 2:00 P.M. | A    | EDV220F | APPLIED ECOLOGY          | MDN. DEC. 15, 1997 | 2:00 P.M. |
| C    | CHE331F | THERMODYNAMICS II       | TUE. DEC. 09, 1997 | 9:30 A.M. | A    | EDV360F | ENV. IMP. & RISK ASS.    | MON. DEC. 15, 1997 | 9:30 A.M. |
| C    | CHE332F | REACTION KINETICS       | MDN. DEC. 15, 1997 | 2:00 P.M. |      |         |                          |                    |           |
| X    | CHE349F | ENG. ECONOMIC ANAL.     | THU. DEC. 18, 1997 | 2:00 P.M. | A    | ENG182F | EFFECT. TECH. WRITING    | MDN. DEC. 15, 1997 | 9:30 A.M. |
| C    | CHE372F | THERM. & REACT. KINETIC | MON. DEC. 08, 1997 | 2:00 P.M. | A    | ENG284F | VARIETIES OF FICTION     | FRI. DEC. 12, 1997 | 2:00 P.M. |
| C    | CHE390F | ENVIRONMENTAL CHEM. I   | WED. DEC. 10, 1997 | 2:00 P.M. |      |         |                          |                    |           |
| C    | CHE393F | TRANSPDRT PHENOMENA     | FRI. DEC. 12, 1997 | 9:30 A.M. | A    | FRE186F | NON-ARTS FRENCH I        | THU. DEC. 18, 1997 | 2:00 P.M. |
| C    | CHE412F | ADV. REACTOR DESIGN     | FRI. DEC. 12, 1997 | 2:00 P.M. |      |         |                          |                    |           |
| A    | CHE463F | POLYMER SCI. & ENG.     | TUE. DEC. 09, 1997 | 9:30 A.M. | A    | GEO310F | HYDRD. EXPLOR. & REC.    | FRI. DEC. 12, 1997 | 9:30 A.M. |
| A    | CHE466F | BIOPRDCSS ENGINEER.     | MDN. DEC. 15, 1997 | 2:00 P.M. | X    | GEO450F | MINING ENGINEERING 2     | FRI. DEC. 05, 1997 | 2:00 P.M. |
| C    | CHE490F | BIOSYSTEMS III          | FRI. DEC. 12, 1997 | 2:00 P.M. |      |         |                          |                    |           |
| A    | CHE492F | ENVIRON. ANALYT. CHEM.  | FRI. DEC. 05, 1997 | 2:00 P.M. | A    | HPS280F | HISTDRY OF SCIENCE       | MON. DEC. 15, 1997 | 9:30 A.M. |
| D    | CHE553F | ELECTROCHEMISTRY        | WED. DEC. 10, 1997 | 2:00 P.M. |      |         |                          |                    |           |
|      |         |                         |                    |           | C    | JTC413F | ADUEOUS PROCESSING       | MON. DEC. 15, 1997 | 9:30 A.M. |
| A    | CIV101F | STRUCT. MAT. & DESIGN   | MON. DEC. 08, 1997 | 9:30 A.M. |      |         |                          |                    |           |
| D    | CIV102F | STRUCT. & MATERIALS     | MDN. DEC. 15, 1997 | 2:00 P.M. | C    | JVM209F | ENGINEERING MATERIAL     | WED. DEC. 17, 1997 | 9:30 A.M. |
| C    | CIV210F | SOLID MECHANICS I       | FRI. DEC. 12, 1997 | 9:30 A.M. |      |         |                          |                    |           |
| A    | CIV255F | SURVEYING               | THU. DEC. 18, 1997 | 2:00 P.M. | A    | MAT186F | CALCULUS I               | FRI. DEC. 05, 1997 | 9:30 A.M. |
| A    | CIV261F | ENGINEERING MATH. I     | TUE. DEC. 09, 1997 | 9:30 A.M. | A    | MAT188F | APP. LINEAR ALGEBRA      | THU. DEC. 18, 1997 | 9:30 A.M. |
| D    | CIV312F | STEEL & TIMBER DESIGN   | FRI. DEC. 12, 1997 | 9:30 A.M. | A    | MAT194F | CALCULUS I               | THU. DEC. 18, 1997 | 2:00 P.M. |
| X    | CIV314F | STRUCTURAL DESIGN       | FRI. DEC. 12, 1997 | 9:30 A.M. | A    | MAT196F | CALCULUS A               | FRI. DEC. 05, 1997 | 9:30 A.M. |
| A    | CIV321F | GEOMECHANICS            | WED. DEC. 10, 1997 | 9:30 A.M. | A    | MAT198F | LINEAR ALGEBRA           | THU. DEC. 18, 1997 | 9:30 A.M. |
| A    | CIV331F | TRANSPORT I - DESIGN    | WED. DEC. 17, 1997 | 9:30 A.M. | C    | MAT280F | CALCULUS                 | FRI. DEC. 05, 1997 | 2:00 P.M. |
| X    | CIV362F | ENGINEERING MATH. II    | MON. DEC. 08, 1997 | 2:00 P.M. | A    | MAT290F | ENG. MATHEMATICS I       | FRI. DEC. 05, 1997 | 2:00 P.M. |
| B    | CIV375F | BUILDING SCIENCE        | FRI. DEC. 05, 1997 | 9:30 A.M. | A    | MAT291F | CALCULUS III             | WED. DEC. 17, 1997 | 9:30 A.M. |
| D    | CIV416F | REINF. CONCRETE II      | FRI. DEC. 12, 1997 | 2:00 P.M. | A    | MAT389F | COMPLEX ANALYSIS         | WED. DEC. 10, 1997 | 2:00 P.M. |
| C    | CIV420F | CONSTRUCTION ENG        | WED. DEC. 10, 1997 | 2:00 P.M. |      |         |                          |                    |           |
| A    | CIV465F | ADEOUS POLL. & CONT.    | TUE. DEC. 09, 1997 | 9:30 A.M. | A    | MIE230F | ENGINEER. ANALYSIS I     | FRI. DEC. 12, 1997 | 9:30 A.M. |
| D    | CIV514F | CONCRETE CONSTRUCT.     | WED. DEC. 17, 1997 | 2:00 P.M. | C    | MIE231F | PROB. & STAT. FOR ENG.   | WED. DEC. 17, 1997 | 2:00 P.M. |
| X    | CIV519F | STRUCTURAL ANAL. II     | MON. DEC. 15, 1997 | 2:00 P.M. | D    | MIE240F | HUM. CENT. SYST. DESIGN  | MON. DEC. 08, 1997 | 2:00 P.M. |
| A    | CIV524F | ROCK MECHANICS          | THU. DEC. 18, 1997 | 2:00 P.M. | D    | MIE265F | MODEL. INTEGRATED SYS    | TUE. DEC. 16, 1997 | 9:30 A.M. |
| D    | CIV530F | TRAFFIC ENGINEERING     | MON. DEC. 08, 1997 | 9:30 A.M. | D    | MIE270F | FLUID MECHANICS I        | WED. DEC. 10, 1997 | 2:00 P.M. |
| A    | CIV540F | ENVIRON. ENG. III       | TUE. DEC. 09, 1997 | 9:30 A.M. | C    | MIE301F | KINE. & DYNAM. OF MACH.  | MON. DEC. 15, 1997 | 2:00 P.M. |
| X    | CIV549F | GROUNDWATER             | FRI. DEC. 12, 1997 | 2:00 P.M. | D    | MIE312F | FLUID MECHANICS I        | FRI. DEC. 12, 1997 | 2:00 P.M. |
| C    | CIV550F | WATER RESOURCES ENG.    | MON. DEC. 15, 1997 | 2:00 P.M. | D    | MIE322F | MECHANIC. OF SOLIDS I    | WED. DEC. 10, 1997 | 9:30 A.M. |
| B    | CIV575F | BUILDING SCIENCE        | FRI. DEC. 05, 1997 | 9:30 A.M. | C    | MIE337F | STAT. & EXPR. DESIGN     | TUE. DEC. 09, 1997 | 9:30 A.M. |
|      |         |                         |                    |           | X    | MIE343F | INDUST. ERGO. & WORKPL.  | FRI. DEC. 12, 1997 | 2:00 P.M. |
| C    | CSC180F | COMPUTER PROGRAMMING    | MON. DEC. 08, 1997 | 2:00 P.M. | A    | MIE353F | DATA MODELLING           | WED. DEC. 10, 1997 | 2:00 P.M. |
| C    | CSC181F | INT. TO COMP. PROGRAM.  | MON. DEC. 08, 1997 | 2:00 P.M. | A    | MIE358F | ENG. ECONO. & ACCOUNT.   | WED. DEC. 17, 1997 | 2:00 P.M. |
| A    | CSC326F | PROGRAMMIN. LANGUAGES   | FRI. DEC. 12, 1997 | 2:00 P.M. | A    | MIE362F | OPERATIONAL RES. I       | MON. DEC. 15, 1997 | 2:00 P.M. |
| A    | CSC442F | SOFTWARE ENGINEERING    | THU. DEC. 18, 1997 | 9:30 A.M. | D    | MIE371F | ENG. ECONOMIC ANAL.      | WED. DEC. 17, 1997 | 2:00 P.M. |
| X    | CSC470F | COMP. SYS. MODEL. & ANA | TUE. DEC. 16, 1997 | 9:30 A.M. | A    | MIE372F | CONTROL SYSTEMS          | FRI. DEC. 05, 1997 | 9:30 A.M. |
|      |         |                         |                    |           | B    | MIE404F | CONTROL SYSTEMS I        | FRI. DEC. 05, 1997 | 2:00 P.M. |
| C    | ECE212F | CIRCUIT THEORY          | MON. DEC. 08, 1997 | 2:00 P.M. | D    | MIE414F | APP. FLUID MECHANICS     | WED. DEC. 17, 1997 | 9:30 A.M. |
| D    | ECE241F | DIGITAL SYSTEMS         | WED. DEC. 10, 1997 | 2:00 P.M. | A    | MIE446F | COMPAIDED GRAP. & DES    | FRI. DEC. 12, 1997 | 2:00 P.M. |
| C    | ECE250F | ELECTRIC CIRCUITS       | WED. DEC. 17, 1997 | 9:30 A.M. | A    | MIE448F | COGNITIVE ERGONOMICS     | FRI. DEC. 12, 1997 | 2:00 P.M. |
| D    | ECE253F | DIGITAL & COMPUT. SYS   | TUE. DEC. 09, 1997 | 9:30 A.M. | C    | MIE467F | ADV. OPERATIONAL RES.    | WED. DEC. 17, 1997 | 9:30 A.M. |
|      |         |                         |                    |           | X    | MIE519F | ENVIRON. FLUID MECH.     | MON. DEC. 08, 1997 | 2:00 P.M. |
|      |         |                         |                    |           | X    | MIE536F | ENGINEER. ANALYSIS II    | WED. DEC. 10, 1997 | 2:00 P.M. |

# University of Toronto

## Faculty of Applied Science and Engineering

### Final Examination Timetable - Fall 1997



| Type | Course  | Course Name          | Date               | Time      | Type | Course  | Course Name           | Date               | Time      |
|------|---------|----------------------|--------------------|-----------|------|---------|-----------------------|--------------------|-----------|
| A    | MIE562F | SCHEOULING           | WEO. DEC. 10, 1997 | 2:00 P.M. | A    | MMS315F | ENVIR.DEGRAO.OF MAT.  | MON. DEC. 08, 1997 | 2:00 P.M. |
| A    | MIE566F | OECISION ANALYSIS    | FRI. DEC. 05, 1997 | 2:00 P.M. | A    | MMS316F | MECH.BEHAV.OF MATER.  | THU. DEC. 18, 1997 | 2:00 P.M. |
|      |         |                      |                    |           | A    | MMS401F | MATER.SELECT.&OESIGN  | THU. DEC. 11, 1997 | 2:00 P.M. |
| A    | MMS101F | APP.SCI..MATERIALS   | THU. DEC. 11, 1997 | 9:30 A.M. | C    | MMS402F | SOLIDIFICA. & CASTING | TUE. OEC. 09, 1997 | 2:00 P.M. |
| A    | MMS150F | MATERIALS SCIENCE    | MON. DEC. 08, 1997 | 9:30 A.M. | A    | MMS420F | BIOMATERIALS          | WEO. DEC. 17, 1997 | 9:30 A.M. |
| C    | MMS202F | THERMODYNAMICS       | WED. DEC. 10, 1997 | 9:30 A.M. | A    | MMS450F | PLANT DES.PROC.IND.   | MON. DEC. 08, 1997 | 9:30 A.M. |
| A    | MMS207F | STRUCT.&CHAR.OF MAT. | FRI. DEC. 12, 1997 | 9:30 A.M. |      |         |                       |                    |           |
| A    | MMS270F | MATERIALS SCIENCE    | WED. DEC. 10, 1997 | 2:00 P.M. | A    | PHY180F | PHYSICS I-MECHANICS   | THU. DEC. 11, 1997 | 2:00 P.M. |
| C    | MMS313F | HIGH TEMP.PHYS.CHEM. | WED. DEC. 10, 1997 | 2:00 P.M. | B    | PHY280F | PHYSICS II            | THU. DEC. 11, 1997 | 9:30 A.M. |
| C    | MMS314F | KINETICS OF MAT.PRO. | FRI. DEC. 12, 1997 | 2:00 P.M. |      |         |                       |                    |           |

All examinations last 2.5 hours.

For all the examinations, permissible aids are pen and pencil, a bilingual dictionary, drafting instruments and, if permitted, an electronic calculators (see below), without their carrying cases.

Unless specifically prohibited, the use of certain types of non-printing, silent, self-powered electronic calculators is permitted in all examinations. There are restrictions on the kinds of calculators permitted. For complete information see "instructions for the guidance of candidates during examinations" posted outside the faculty office.

A: for those examinations marked "A" on the timetable, a candidate may not bring any aids other than those listed above.

B: for those examinations marked "B" on the timetable, a candidate may not bring any aids other than those listed above. Separate aids or data, as specified at the top of the examination paper, are provided by the examiner for distribution to the candidates by the registrar of the faculty.

C: for those examinations marked "C" on the timetable, a candidate may bring to the examination and use a single aid sheet, prepared by the candidate on the standard form provided by the lecturer.

D: for those examinations marked "D" on the timetable, a candidate may bring to the examination and use such books, notes or other printed or written material as may be specified by the examiner.

X: for those examinations marked "X" in the timetable, and only those, a candidate may bring into the examination room and use any books, notes, or other printed or written material for his or her use only.

Students should consult the "seating lists" posted outside the faculty office Galbraith 157, to determine the location and seating for examinations.

Students writing Arts and Science examinations will write at the time and place designated on the Arts and Science Examination Timetable.

Those students with examination clashes must report them to the Office of the Registrar, Galbraith 157, prior to Dec. 3, 1997.

Misreading the timetable will not be accepted as a reason for failing to attend an examination.

Check the time of day as well as the date for each examination. Do not assume that there is any fixed "pattern" between series of course numbers and the time of day for the examination.

# THIS IS YOUR LAST CHANCE TO RESERVE YOUR SKULE™BOOK!



*On sale November 10<sup>th</sup> to 21<sup>st</sup>  
in the Engineering Stores  
\$25.00 Each.*

# Back Page

## Skule™ Rucks Over the Rugby Competition!

by Gord Bennett INDY 979+PEY

The season has started out with a bang for the ruggers of Skule™. Once more, Engineering is the only faculty able to boast two teams in the premiere division of intramural rugby. Not only that, but two killer teams. Engineering B (The 'Ol Boys), a team led jointly, in its own right, by each member of the squad, will soon be coming to the end of a yet unblemished season. Thus far, Engineering B is 4-0 and has been the team to beat in the fight for first place. At 169 points 'for' and 5 'against', Engineering B has earned the widest point spread in the league. The next couple of matches will pose EngB's toughest obstacles: neither Innis nor Law will be easily beaten.

Engineering A, a team lead by the Two

Veterans Ross(ta) Walters and Robbie Ricci, is comprised of a slew of new talent. EngA kicked off the season with some tough competition, namely Meds, Erindale and Scarborough, who have each served as challenging opponents in the past. EngA currently maintains a 3-1 record with a respectable point spread. Due to the scheduling of an away game to Scarborough in the middle of midterms, EngA was forced to forfeit the last match. After midterms, the team will 'gel' a little more, and we will see a couple of more wins. Keep up the good work, A (eh).

We are off to a good start but the real competition is ahead of us. Hallowe'en will mark the transition into playoffs. With a little luck we may see an EngA vs EngB Championship match. Good luck guys, and Have Another Donut!



The Engineering Rugby Team.

## But does it Block X-Ray Vision?

by Greg Kunyavsky COMP 070

Ever been ridiculed by your friends for being too chicken to open a microwave while it is working? Well, now you can be cool without feeling roasty, thanks to a new fabric — the focus of this month's column.

A new line of clothing is about to hit the stores in Japan, made of a special fabric which reflects electromagnetic radiation. It is targeted at the business

environment, where it can protect people from EMR from cellular phones, computers and other such equipment which gives off EMR.

Baloney, you say? Well, yes and no. The fabric contains nylon-polyester fibers coated with copper or silver (10g per square meter) which makes anyone wrapped in it electrically equivalent to well-shielded coaxial cable. It only blocks high frequency radiation from things like micro-

wave ovens and cellular phones. Low frequency radiation from a monitor, for example, is unaffected. But it does not really matter, since 99% of studies show no links between our health (actually, mice's health mostly) and EMR. (I've done my homework.)

Oh, you are asking, "what about the remaining one per cent?" In that case I have 11 digits for you: 1-888-LESS-EMF. Also check out [www.shieldworks.com](http://www.shieldworks.com). Shield-

Works makes a whole line of radiation protection articles: vests, scarves, aprons, bad sheets, and caps — Mona Lisa's "sunglasses for the brain".

Bottom line: thumbs down from the TechnoGuru. No one will buy it except maybe Trekkies (are there Trekkies in Japan?) and UFO cults in the States. I mean, who is going to buy electrically conductive boxers? They should be marketed as tractor beam deflectors or Alien Wear.

this month @ skule

| Sunday                                                            | Monday                                                           | Tuesday                                                                                                       | Wednesday                        | R-Day                                                                                | Friday                                                                                                            | Saturday                                             |
|-------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| 26                                                                | 27                                                               | 28                                                                                                            | 29                               | 30                                                                                   | 31                                                                                                                | 1                                                    |
|                                                                   |                                                                  |                                                                                                               |                                  |                                                                                      | Hallowe'en<br>Suds<br>(it was good,<br>where were you?)                                                           | the<br>Cannon<br>layout weekend                      |
| 2                                                                 | 3                                                                | 4                                                                                                             | 5                                | 6                                                                                    | 7                                                                                                                 | 8                                                    |
|                                                                   | High School<br>Liaison Meeting<br>CCES Applications<br>Available | the<br>Cannon<br>issue<br>(you're reading it)                                                                 | Guy Fawkes Day                   |                                                                                      |                                                                                                                   | EngSci<br>Dinner /<br>Dance                          |
| 9                                                                 | 10                                                               | 11                                                                                                            | 12                               | 13                                                                                   | 14                                                                                                                | 15                                                   |
|                                                                   | Municipal<br>Election<br>Day!<br>Skule™ Book<br>Sales Start      | Remembrance Day! Ceremony<br>Soldiers' Tower<br>10:30a/m/<br>EXECUTIVE COMMITTEE MEETING<br>Buy A Skule™ Book |                                  |                                                                                      | CCES Applications Due<br>CIV Dinner/Dance<br>FIROSH FOR A DAY<br>EngSci V-Ball Tourney (→15)<br>Brunny Field Trip |                                                      |
| 16                                                                | 17                                                               | 18                                                                                                            | 19                               | 20                                                                                   | 21                                                                                                                | 22                                                   |
|                                                                   | Buy A Skule™ Book                                                | Buy A Skule™ Book                                                                                             | Buy A Skule™ Book                | Buy A Skule™ Book                                                                    | MIE Dinner/Dance<br>FIROSH FOR<br>A DAY                                                                           | ECE Dinner/Dance                                     |
| 23                                                                | 24                                                               | 25                                                                                                            | 26                               | 27                                                                                   | 28                                                                                                                | 29                                                   |
|                                                                   | Cannon article<br>deadline                                       | EngSci Full<br>Council Meeting<br>6 p.m. MC252<br>"External<br>Affaire" in the<br>Atrium                      | Faculty<br>Council<br>2pm, GB202 | Professional<br>Development<br>Seminar<br>Cannon Copy<br>Editing<br>4-6 p.m. Eng Com | Dragonboat<br>SUDS!                                                                                               | the<br>Cannon<br>layout weekend<br>CHEM Dinner/Dance |
| 30                                                                | 1                                                                | 2                                                                                                             | 3                                | 4                                                                                    | 5                                                                                                                 | 6                                                    |
| Hart House<br>Symphonic Band<br>Winter Concert<br>3pm, Hart House |                                                                  | the<br>Cannon<br>issue                                                                                        | Last day of<br>lectures          |                                                                                      | Exams begin                                                                                                       |                                                      |